

Title (en)  
Working machine

Title (de)  
Arbeitsmaschine

Title (fr)  
Machine de travail

Publication  
**EP 1829811 B1 20100519 (EN)**

Application  
**EP 07103399 A 20070302**

Priority  
JP 2006058772 A 20060304

Abstract (en)  
[origin: EP1829811A2] At an inner circumference side of a lower ring (11) and an upper ring (16), flange parts (17,18) are formed respectively, and a ring-shaped clamp device (19) is arranged at the inner circumference side, and separated at four points, into a front side, back side, left side, and right side, and divided into four divided clamps (31a,31b,31c,31d). At the separation points of front and back sides, the left (31d,31c) and right (31a,31b) divided clamps are rotatably connected with each other (at 32), and at the separation points of left and right sides, the front and back divided clamps are connected to cylinders (34) respectively. By the extension/contraction operation, the front and back clamps move between joint and separation positions, and if the front and back clamps position at the joint points, predetermined spaces are formed between the divided clamps (31a-31d). Lock blocks (41) to be inserted into the spaces for regulating return of the divided clamps (31a-31d) to the separation positions are provided.

IPC 8 full level  
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CPC (source: EP US)  
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Cited by  
CN102485633A; CN111519691A

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